Sussex Hand Surgery

SURGERY
Wrist Replacement

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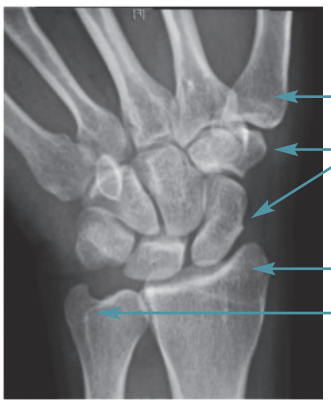
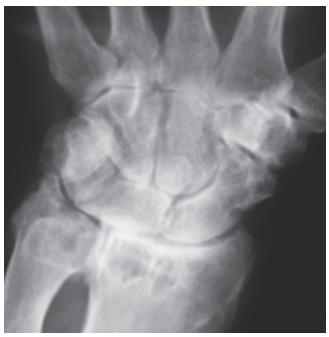
Wrist Replacement

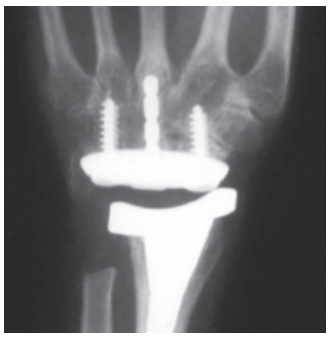
Normal Wrist Xray



Arthritic Wrist Xray



Replaced Wrist Xray



Type of Operation	Usually an overnight stay
Length of Procedure	2 hours
Anaesthesia	Regional Anaesthetic (whole arm numb) and/or General Anaesthetic (asleep)

What does this involve?

This involves removing the arthritic joints in your wrist, fusing some of them together and replacing the others with an artificial joint. The new joint is usually made of metal and plastic.

The distal ulna provides forearm rotation against the side of the end of the distal radius. This is treated as a separate joint in this operation. It can be left alone, removed or replaced (see 'Ulnar Head Replacement'). In the example shown above it has been removed.

When is surgery needed?

This operation is an option to consider when the wrist joint is severely painful and significantly interfering with function.

All simple interventions such as painkillers, activity modification, aids to help with certain tasks (opening jars etc) splints (removable supports) and steroid injections should be tried before surgery is considered. The majority of patients with wrist arthritis can manage their symptoms in this way without ever needing an operation.

Which operation is the right one for me?

There are a number of surgical alternatives to a wrist replacement. The right option for you depends on what you feel about surgical risks, your functional requirements and the pattern of arthritis you have. Options include:

- Wrist denervation – this involves removing the small nerves that supply sensation to the wrist joint. In some people this can relieve pain for a few years to allow you to function more effectively.
- Partial wrist fusion – this involves fusing some of the wrist bones together, taking some of the bones out and relying on the few remaining parts of the joint that are still in a good condition for movement (see 'Partial Wrist Fusions')
- Proximal Row Carpectomy – this involves removing the first row of wrist bones in the wrist and relying on the remaining bones for movement
- Total Wrist Fusion – this involves fusing all the wrist bones together but leaving the rotating joint between the radius and the ulna (see 'Total Wrist Fusion')

Your surgeon will discuss the options for your individual case with you.

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What are the main risks of this operation?

Swelling, Stiffness and Scar pain

This can be reduced by keeping the arm elevated and moving all the free joints as soon as possible. In most people the general swelling reduces dramatically in the two weeks after the operation.

Local swelling around the surgical site can persist for several months. Local swelling can be helped by massaging the tissues and this may also improve any irritability in the surgical scar.

Occasionally patients are troubled by more swelling and stiffness than average. In this case complex regional pain syndrome (CRPS) is sometimes the cause (see relevant information sheet in 'Conditions we Treat'). Severe CRPS occurs in less than 1% of cases.

A limited final range of motion is expected after this sort of surgery, compared to a normal wrist. For instance studies report an average of 20° of extension and 42° of flexion with this operation in patients with rheumatoid arthritis.

Infection

This is unusual in the hand (less than 1% of cases). Local wound infections can often be treated with antibiotics by mouth. Rarely deep seated infections may require re-admission to hospital, antibiotics into the vein and occasionally more surgery.

Wound Breakdown/Haematoma formation

This is a big operation and there is always some swelling and bleeding after the operation. Sometimes this is more marked and very rarely there is so much swelling that the wound stitches fail. Usually the body will reabsorb any swelling gradually over time but if the wound does open up considerably returning to theatre to wash out the blood and re-stitch the wound might be recommended.

Nerve Damage

The nerves most at risk with these operations are the small skin branches supplying sensation around the scar on the back of the hand. The lost patch of skin sensation from these injuries might be irritating but should not affect how your hand works. Pre-existing carpal tunnel syndrome can be made worse because of the swelling after this operation.

Loosening or failure of the replacement components

With modern designs this seems to be the main cause of failure, at least in patients with rheumatoid arthritis. The type of replacement used most frequently in our department (the Universal 2 replacement) lasts well for the first 5 years after implantation. The results for wrist replacement are less reliable than for hip and knee replacements.

Dislocation of the components

This was a problem with older designs but has been less of an issue with newer designs. This remains a theoretical risk however.

Residual Joint Discomfort

This operation is good at relieving pain. 91% of patients with a wrist replacement have no, or mild, residual pain in their wrist when the effects of the surgery have worn off.

Post Operative Course

Week 0 – 2 after surgery

- A dressing and padded temporary plaster is also applied in theatre
- Keep the dressings clean and dry
- Keep the arm elevated in a sling or on pillows to reduce swelling
- Start moving any free joints immediately to prevent stiffness
- Take painkillers before the anaesthetic wears off and as necessary thereafter

During the first 2 Weeks

- An appointment will be made for a wound check, dressing change and a removal of the sutures (if necessary). The details will be arranged on the day of surgery
- A removable splint will be provided
- Hand Therapy will be arranged to help with your rehabilitation
- Further clinic appointments will be arranged as necessary

Plaster Cast Information

Contact your surgical centre if:

- Your fingers become blue, swollen or numb and tingling with a plaster cast in place
- You see any discharge, wetness or detect any unpleasant smells from around your cast
- The cast becomes cracked, soft, loose or uncomfortable.

Outside normal working hours you may need to attend your local Accident and Emergency Department for help with these issues.

Driving

You may drive when you feel confident to control the car, even in an emergency.

If is usually at least two months before you should consider driving again.

You should discuss it with your insurer if you are considering driving with a splint in place.

Time off Work

This will vary depending on the nature of your job.

Sick notes can be provided on the day of your operation, at your clinic visits and by your own GP.

These notes are intended as a guide and some of the details may vary depending on your individual circumstance and at the discretion of your surgeon.